Amendments to the claims

This listing of claims replaces all prior versions and listings of claims in this application.

Claims:

1. (Canceled)

2. (Currently amended)   A cryptographic method of enabling a consumer to obtain a document from an owner upon making a payment, the method comprising a step of using a protocol involving the consumer, the owner, a document source and a mediator, wherein the source requires knowledge of a key in which said document is encrypted in order to provide the said document, said key comprising a first portion, a second portion, a third portion, and a fourth portion, the protocol comprising the following sequential steps:
      (a) the consumer requests a specified document;
      (b) the owner provides the source with the first and third portions of the key and provides [[a]] the mediator with the fourth portion of the key, which can combine with the third portion of the key to generate a complete key;
      (c) the consumer provides the owner with the payment;
and either:
      (d1) the owner provides the source with the second portion of the key and said first portion of the key is combined with said second portion of the key to generate a complete key; or
      (d2) the owner does not provide the source with the second key portion, and the third key portion is combined with the fourth key portion to generate a complete key.

3. (Original) A cryptographic method as claimed in Claim 2, wherein said first and said third portions of the key are different.

4. (Previously presented)   A cryptographic method as claimed in Claim 2, and arranged for enabling a said consumer to receive a plurality of such documents, wherein said first and second portions are different for each document.

5. (Previously presented)   A cryptographic method as claimed in Claim 2, wherein the mediator is involved in the protocol only in the event of a dispute between the owner and the consumer.

6. (Previously presented)   A cryptographic method as claimed in Claim 2, wherein the document source comprises a printer.

7. (Previously presented)   A printer for use in enabling a consumer to print a document from an owner upon making a payment, the printer including:

(a) a memory for storing a first key portion and a third key portion;

(b) an element for receiving a second key portion or a fourth key portion; and

(c) an element for decrypting an encrypted document transmitted thereto in accordance with an encryption key defined by said first and said second key portions or said third and said fourth key portions.

8. (Canceled)

9. (Canceled)

10. (Previously presented) A printer as claimed in Claim 7, arranged to print a number of copies of a said document in each of a plurality of formats.

11. (Previously presented) A printer as claimed in Claim 10, arranged to print only one copy of a said document in a first format and an unlimited number of copies of said document in a second format.

12. (Previously presented) A printer as claimed in Claim 10, wherein said formats comprise different resolutions.

13.   (Previously presented)A printer as claimed in Claim 10, wherein said formats comprise monochrome and color images.

14-16 (Canceled)

17. (Previously presented) A cryptographic method as claim in claim 5 wherein if the consumer provides the owner with the payment, but the owner does not provide the consumer with the second key portion, then the mediator provides the consumer with the fourth key portion.

18. (Previously presented) A fair exchange method of enabling a consumer to obtain a document from an owner upon receipt of a payment including the following steps:

      (a) the consumer requests a specified document;

      (b) the owner provides a document source with a first and a third portion of a key to the consumer and the owner also provides a mediator with the fourth portion of the key, which fourth portion of the key can combine with the third portion of the key provided to the consumer to generate a complete key;

      (c) the consumer provides the owner with the payment; and either

      (d1) the owner provides the document source with a second portion of the key, which can combine with said first portion to generate a complete key allowing the document to be printed; or

      (d2) the owner does not provide the source with the second key portion, and the mediator provides the consumer with fourth key portion, which is combined with the third key portion to generate a complete key allowing the document to be printed.

19. (New)   A cryptographic method of enabling a consumer to obtain a document from an owner upon making a payment, the method comprising a step of using a protocol involving the consumer, the owner, a document source and a mediator, wherein the source requires knowledge of a key in which said document is encrypted in order to provide the said document, said key comprising a first portion, a second portion, a third portion, and a fourth portion, the protocol comprising the following sequential steps:

      (a) the consumer requests a specified document directly from the owner;

      (b) the owner provides the source with the first and third portions of the key directly to the consumer and provides the mediator with the fourth portion of the key, which can be combined with the third portion of the key to generate a complete key;

      (c) the consumer provides the owner with the payment;

and either:

  (d1) the owner provides the source with the second portion of the key and said first portion of the key is combined with said second portion of the key to generate a complete key; or

  (d2) the owner does not provide the source with the second key portion, and in that event, then the mediator supplies the fourth key to the consumer so that the consumer can combine the third key portion with the fourth key portion to generate a complete key.

20. (New)   A cryptographic method as claimed in Claim 19, wherein the mediator is involved in the protocol only in the event of a dispute between the owner and the consumer.

21. (New)   A cryptographic method as claimed in Claim 19, wherein the document source comprises a printer.